



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,145	06/11/2001	Itsuko Sakai	04329.2574	1279

22852 7590 02/24/2004

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP
1300 I STREET, NW
WASHINGTON, DC 20005

EXAMINER

TRAN, BINH X

ART UNIT PAPER NUMBER

1765

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/877,145

Applicant(s)

SAKAI ET AL. 

Examiner

Binh X Tran

Art Unit

1765

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 09 February 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: 8 and 9.Claim(s) rejected: 1-7 and 10-17.Claim(s) withdrawn from consideration: 18-31.

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____

NADINE G. NORTON
SUPERVISORY PATENT EXAMINER



Continuation of 5. does NOT place the application in condition for allowance because:

The applicants disagree with the examiner's position that Nozawa teaches "to re-circulate part of the process gas exhausted from the process chamber into the process chamber". According to applicants, Nozawa's reference requires refining mechanism wherein the applicant's invention does not. The examiner acknowledges that Nozawa's reference requires refining mechanism. However, this argument is not commensurate with the scope of the claims because there is no limitation in the claims with excluding the refining mechanism.

The applicants further argue that the examiner has "failed to establish a prima facie case for obviousness because there is no motivation to combine Chao et al. and Nozawa et al". According to applicants the refining mechanism of Nozawa requires additional cost. The examiner disagrees. First as discussed above, there is no limitation in the claims which excluding the refining mechanism. Second, while refining mechanism may cost some money, but the over all operation cost will reduce comparing with using all new materials without refining or recycling.

The applicants further argue that the exhaust gas is "reintroduced (as it is) as recovering gas. As a result, gas which is introduced again into the chamber as recovered gas is made of the components DIFFERENT from the components of the newly introduced gas." This argument is not commensurate with the scope of the claims. There is no limitation in the claims indicating that the exhaust gas is reintroduced "as it is" or "the recovered gas is made of different components from the newly introduced gas".

The applicants argue, "Since Nozawa et al. teaches that the components of recovered gas and introduced gas are the same, they can be introduced into the chamber according to the same introducing condition". The examiner strongly disagrees. The examiner recognizes that the recovering gas and newly introducing gas in Nozawa's reference have the same chemical components. However, this does not mean that they both have the same introducing condition. On the contrary, Nozawa discloses a plasma process using different valve to control the condition (such as flow rate, circulation ratio, etc) for the recovering gas and newly introducing gas.

The applicants further argue that Chao's monitoring system is "used during the processing, on order to determine the etching state". According to applicants, "Chao et al. does not determine a gas flow rate". The examiner strongly disagrees. In col. 5 lines 37-42, Chao clearly states, "the process parameters for performing a specific process related to process condition such as process gas composition and flow rate...chamber wall temperature"

Binh X. Tran